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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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09/342,742

06/29/1999

SHANKAR NATARAJAN

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07/03/2002

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EXAMINER

LEVITAN, DMITRY

ART UNIT

PAPER NUMBER

2662

DATE MAILED: 07/03/2002

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/342,742

Applicant(s)

NATARAJAN ET AL.

Examiner

Dmitry Levitan

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☐ Responsive to communication(s) filed on _____.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-39 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-39 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☒ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 29 June 1999 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on _____ is: a) ☐ approved b) ☐ disapproved by the Examiner.
- If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

- 13) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
- a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449) Paper No(s) 4-6.
- 4) ☐ Interview Summary (PTO-413) Paper No(s). _____.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____.

Information Disclosure Statement

1. The information disclosure statement filed on 6/29/99 fails to comply with 37 CFR 1.98(a)(2), which requires a legible copy of each U.S. and foreign patent; each publication or that portion which caused it to be listed; and all other information or that portion which caused it to be listed. It has been placed in the application file, but the information referred to therein has not been considered.

Specification

2. The abstract of the disclosure is objected to because it is too long. Correction is required. See MPEP § 608.01(b).

The abstract should be in narrative form and generally limited to a single paragraph on a separate sheet within the range of 50 to 150 words. It is important that the abstract not exceed 150 words in length since the space provided for the abstract on the computer tape used by the printer is limited.

Claim Rejections - 35 USC § 112

The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

3. Claims 15 and 16 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Claims 15 and 16 recite the limitation "the second subset of network elements" in line 28 and line 32 on page 54. There is insufficient antecedent basis for this limitation in the claim. It is unclear how to define a second subset of the network elements.

Claim Rejections - 35 USC § 102

4. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in a patent granted on an application for patent by another filed in the United States before the invention thereof by the applicant for patent, or on an international application by another who has fulfilled the requirements of paragraphs (1), (2), and (4) of section 371(c) of this title before the invention thereof by the applicant for patent.

The changes made to 35 U.S.C. 102(e) by the American Inventors Protection Act of 1999 (AIPA) do not apply to the examination of this application as the application being examined was not (1) filed on or after November 29, 2000, or (2) voluntarily published under 35 U.S.C. 122(b). Therefore, this application is examined under 35 U.S.C. 102(e) prior to the amendment by the AIPA (pre-AIPA 35 U.S.C. 102(e)).

5. Claims 1-18, 20-32, 35-39 are rejected under 35 U.S.C. 102(e) as being anticipated by Abe (US 6108304).

Regarding claims 1, 3-9, 12 and 14 Abe teaches a method for providing dynamic feedback control of network elements in a data network (edge nodes EA, EB, EC, ED and network management equipment 200 on Fig. 1 and col. 4 lines 63-68; col.5 lines 1-17), the data network including first plurality of network elements (EA, EB, EC, ED on Fig. 1), each of said elements having a plurality operating parameters associated therewith (bandwidth, buffer status information on col. 10 lines 23-45), said operating parameters being related to at least one control parameter of said element (bandwidth col.10 lines 55-58) comprising: receiving information relating to characteristics associated with a first subset of the plurality of network elements (calculated available

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bandwidth col. 7 lines 32-60); and providing at least one analysis entity (measured bandwidth col. 7 lines 32-60).

Network elements (edge nodes on Fig. 1) automatically receive updated control information (calculated bandwidth) from analysis entity (data analyzing module 405 of network management equipment 200 on Fig 4) compare dynamically changing bandwidth of the network elements (Fig. 21) with set up bandwidth in network management storage device (401 on Fig. 4) and adjust their bandwidth in response to the control information (Fig. 23 and col. 9 lines 1-12).

Regarding claims 2 and 21, Abe teaches a computer program to implement the method (flowchart on Fig. 21 and col.7 lines 32-60).

Regarding claims 10, 11, 15-18, 20, 22-26 Abe teaches a second subset of the plurality of ATM or Frame Relay (col.5 lines 14-17) network elements (relay nodes N1, N2 and N3 on Fig.1) controlled by the same network management equipment 200, receiving control information in response of data congestion of the first network elements (edge nodes on fig. 1) as shown on Fig.15 and 23 (col.8 lines 5-40).

Regarding claim 13, Abe teaches the method with periodically updating receive (monitor RM cells col.10 lines 63-68 and col. 11 lines 1-15) information on available bandwidth.

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Regarding claims 27-32, 35-39 Abe teaches an adaptive feedback system in an ATM or Frame Relay (col.5 lines 14-17) data network, including a plurality of network elements (EA, EB, EC, ED and N1, N2, N3, N4) with operating parameters associated with control parameters of the system (Fig. 1) comprising one CPU (network management controller 402 on Fig. 4 and col. 5 lines 42-46), first interface for receiving information related to characteristics (access network side on Fig. 12) associated with a first subset of the plurality of network elements (EA, EB, EC, ED); second and third interfaces (to network management equipment on Fig. 12 and col. 6 lines 53-64) for receiving and transmitting the information to the analysis entity (data analyzing model 405 on Fig. 4) and first memory for storing information (data collecting module 406 on Fig. 4). Second and third interfaces (to network management equipment on Fig. 12) are capable to receive and transmit automatically an updated control information to and from the analysis entity (through transmit and receive module 408 on Fig. 4 and col. 5 lines 42-53) and second memory for storing information on each node (Fig. 21 and col. 5 lines 58-68, col. 6 lines 1-5). The analysis entity (data analyzing module 405 on Fig. 4) operates on selected guidelines (col. 3 lines 5-28) to control the network.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

6. Claim 19 is rejected under 35 U.S.C. 103(a) as being unpatentable over Abe in view of Desai (US 5,781,703).

Abe teaches all the claim limitations specified in claims 1 and 10. Abe does not teach using plurality of network controllers. Desai teaches multiple network controllers (data servers 14 on Fig. 1 and col. 3 lines 2-30). It would have been obvious to one of ordinary skills in the art at the time the invention was made to use multiple network controllers , as suggested by Desai, to the method of Abe to improve reliability of the method.

7. Claims 33 and 34 are rejected under 35 U.S.C. 103(a) as being unpatentable over Abe.

Abe teaches implementing IP and AAL5 protocols for the first and second interfaces(col. 9 lines 1-68 and col. 10 lines 1-23). He does not teach using Directory Access Protocol or JNDI, however numerous protocols, known in the industry, can be used in the disclosed feedback system.

Conclusion

8. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

Thornberg	US 5,742,588	Packet switched traffic management in a cellular telecommunication system.
Vaid	US 6,137,777	Control tool for bandwidth management.
Oomuro	US 5,258,979	ATM communication system with optimal traffic control.


Okuda	US 5,450,601	Node evaluation data collection and distribution system for local or wide area networks.
Soha	US 4,817,080	Distributed local area network monitoring system.
Notess	US 5,251,152	Storage and display of historical LAN traffic statistics.
Adams	US 5,504,744	Broadband switching network.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Dmitry Levitan whose telephone number is 703-305-4384. The examiner can normally be reached on 8:30 to 4:30.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Hassan Kizou can be reached on 703-305-4744. The fax phone numbers for the organization where this application or proceeding is assigned are 703-872-9314 for regular communications and 703-872-9314 for After Final communications.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is 703-305-4750.

Dmitry Levitan
Patent examiner.
June 26, 2002



HASSAN KIZOU
SUPERVISORY PATENT EXAMINER
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